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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT PAPER NUMBER

2616

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/973,299

Applicant(s)

KHALIL ET AL.

Examiner

Phuongchau Ba Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections – 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 9-14, 17, 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Flynn (6,892,069).

Regarding claim 1,

Flynn (6,892,069) discloses a method for registration of a mobile node on a packet-based communication network (IP network) comprising the steps of:

requesting a care-of-address for a mobile node by transmitting a request message to a first node on a first network, said first node capable of assigning a unique care-of-addresses to each of a plurality of mobile nodes connecting to said first network {col.2, lines 10-43, wherein the mobile node 6 obtained (requested and got assigned) a temporary care of address from a foreign agent (first node) on the foreign network (first network)};

receiving a care-of address for said mobile node at a home network under a first circumstance from the first network, wherein said care-of address is an expanded address identifying the network address location for said mobile node on the first network, and said care of address is included in an information packet that comprises a source address data field containing the expanded address for the source node transmitting data in the information

packet, a destination address data field containing the expanded address for the intended destination node ultimately receiving the data, and a payload data field containing the data transmitted from the source node to the destination node (col.2, lines 9–43, wherein the home agent received the care of address of the mobile node via a registration request message) ;

routing a message acknowledging receiving said care of address to said first network (col.2, lines 9–43, wherein the home agent acknowledged the receiving of the care of address by sending a registration reply message to the foreign network granting the registration request);

allocating a node on the home network to forward information packets to the mobile node at the care of address using a binding message transmitted on the first network to said node on the home network (col.2, lines 9–43, wherein the home agent would forward data intended for the mobile node 6 using the registered care of address); and

updating a plurality of nodes with the mobile node registration address on the home network with said care-of address (col.2, lines 33–43, wherein the home agent would updating the nodes on the home network with the mobile

node's care of address whenever the node sent a message intended to the mobile node).

Regarding claim 2, Flynn discloses requesting said care-of address (foreign care of address) from a serving mobility manager (Foreign Agent) on the first network (foreign network) (col.2, lines 9-43).

Regarding claim 3, Flynn discloses allocating said mobile node care-of address on the first network (foreign network) after said request step (col.2, lines 9-43).

Regarding claim 4, Flynn discloses wherein the care-of address is transmitted through the serving mobility manager (Foreign Agent) on the first network (Foreign Network) to said home network (col.2, lines 9-43).

Regarding claim 5, Flynn discloses wherein the care-of address is obtained from a pool of expanded addresses (temporary care of address) provided to

said serving mobility manager (foreign agent) on the first network (foreign network) (col.2, lines 9-21).

Regarding claim 9,

Flynn discloses a method of performing a mobile node hand-off on a packet-based communication network, comprising the steps of:

responding at a second network (home network) to a request for said mobile hand-off from a first network (foreign network), said response including allocating a care-of address, said care-of address having an expanded address capable of identifying the network address location for the mobile node on the first network, and said care of address is included in an information packet that comprises a source address data field containing the expanded address for the source node transmitting data in the information packet, a destination address data field containing the expanded address for the intended destination node ultimately receiving the data, and a payload data field containing the data transmitted from the source node to the destination node {col.2, lines 10-43,

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wherein the mobile node 6 obtained (requested and got assigned) a temporary care of address from the foreign network (first network));

transmitting said care of address from a serving mobility manager (an external assignment mechanism DHCP, col.2, lines 17-19) on said first network (foreign network) to the mobile node, said serving mobility manager functioning to request said care of address from a first node (foreign agent or the router connected to the foreign network 8, col.2, lines 2-3) on the first network capable of allocating a unique care of address (col.2, lines 9-43);

allocating a router (home agent, col.2, line 2) on the home network to route information packets to said mobile node at the care of address using a binding message (col.2, lines 48-53, wherein encapsulating the datagrams to form the binding message with the care of address for the mobile node); and

updating the care-of address for the mobile node on the first network (foreign network) and the home network {col.2, lines 33-43, mobile node updating its care of address with the foreign network by registered with the foreign network for a temporary foreign care of address, and updating its

current address (temporary foreign care of address) with the home network by sending a registration request to the home agent}.

Regarding claim 10, Flynn discloses wherein the first node comprises a computer server (inherent database at the router/foreign agent for storing mobility binding of the care of addresses at foreign agent—not shown) (col.9, lines 2-3, 9-43).

Regarding claims 11-14, Flynn discloses foreign care of address allocated from a foreign agent in the roaming/foreign/current network to a mobile node in home network that is other than its home network for roaming, emphasis added (col.2, lines 9-43).

Regarding claim 17,

Flynn discloses a method of registering a mobile node on a packet-based communication network comprising the steps of:

transmitting a request message from said mobile node to a first router (foreign agent) that initiates assigning a care of address, said mobile node registering on a first network (foreign network) (col.2, lines 9–43, mobile node 6 obtained a temporary care of address on the foreign network);

receiving a request from said first router (foreign agent) at a server computer (inherent database at router/foreign agent—not shown) storing care of addresses for allocating to registering mobile nodes on the first network (foreign network)(col.2, lines 9–43);

allocating the care-of address from said server computer (foreign agent), said care-of address having an expanded address for identifying a network address location of said mobile node or other nodes, and said care of address location of said care of address included in an information packet transmitted over said first network comprising a source address data field containing the expanded address for the source node transmitting data in the information packet, destination address data field containing the expanded address for the intended destination node ultimately receiving the data, and a payload data field containing the data transmitted from the source node to the destination

node (col.2, lines 9-43, wherein the mobile node had obtained the temporary care of address from the foreign network);

transmitting said care of address to a serving mobility manager (home agent) on a second network (home network), said serving mobility manager allocating a router on the second network to provide routing and other services to the mobile node (col.2, lines 9-43, wherein the home agent would route message intended to the mobile node in the foreign network using the mobile node's registered care of address); and ,

transmitting said care-of address to said allocated router (home agent) and responding with a response message (registration reply) to said mobile node indicating registering is complete (col.2, line 9-43, wherein the home agent sent a registration reply to the foreign agent to grant the updated care of address of the mobile node).

### ***Claim Rejections – 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6–7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (6,892,069) in view of Magret (6,804,221).

Regarding claim 6, Flynn discloses wherein said first network is a foreign network and all the claimed limitations, except said first circumstance is a power-up performed by said mobile node on said foreign network.

However, in the same field of endeavor, Magret (6,804,221) discloses said first circumstance is a power-up performed by said mobile node on said foreign network (col.2, lines 54–67, col.3, lines 1–7). Therefore, it would have been obvious to an artisan to apply Marget's teaching to Flynn's system with the motivation being to identify foreign agent or obtain a care of address.

Regarding claim 7, Flynn discloses wherein said first network is a foreign sub-network located on said home network and all the claimed limitations, except

said first circumstance is a power-up performed by said mobile node on said foreign network.

However, in the same field of endeavor, Magret (6,804,221) discloses said first circumstance is a power-up performed by said mobile node on said foreign sub-network. (col.2, lines 54-67, col.3, lines 1-7). Therefore, it would have been obvious to an artisan to apply Marget's teaching to Flynn's system with the motivation being to identify foreign agent or obtain a care of address.

5. Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (6,892,069) in view of Hiller (6,455,922)

Regarding claim 8,

Flynn discloses all the claimed limitations, except a server computer (Foreign server) on said first network (foreign network). However, in the same of endeavor, Hiller (6,455,922) disclose Foreign AAA server 14 (server computer) on the foreign network, see figure 2. Therefore, it would have been obvious to an artisan to apply Hiller's teaching to Flynn's system with the

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motivation being to handle potentially overlapping home addresses of mobile nodes.

Regarding claim 20, Flynn discloses all the claimed limitations, except an AAA server computer (Foreign server) on said first network (foreign network).

However, in the same of endeavor, Hiller disclose Foreign AAA server 14 on the foreign network, see figure 2. Therefore, it would have been obvious to an artisan to apply Hiller's teaching to Flynn's system with the motivation being to handle potentially overlapping home addresses of mobile nodes.

6. Claims 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (6,892,069) in view of Lemilainen (6,681,259)

Regarding claim 15,

Flynn discloses all the claimed limitations, except moving the mobile node to said second network after requesting said system hand-off.

However, in the same field of endeavor, Lemilainen (6,681,259) discloses moving the mobile node to said second network after requesting said system

hand-off (col.13, lines 25-42). Therefore, it would have been obvious to an artisan to apply Lemilainen's teaching to Flynn's system with the motivation being to provide the second mobile terminal to transmit using the same IP address of the first mobile terminal without know the data network and address used by the first mobile terminal.

Regarding claim 18, Flynn discloses all the claimed limitations, except wherein the mobile node moves to the second network (foreign network) after the transmission of the registration request.

However, in the same field of endeavor, Lemilainen (6,681,259) discloses wherein the mobile node moves to the second network (foreign network) after the transmission of the registration request (col.13, lines 25-42). Therefore, it would have been obvious to an artisan to apply Lemilainen's teaching to Flynn's system with the motivation being to provide the second mobile terminal to transmit using the same IP address of the first mobile terminal without know the data network and address used by the first mobile terminal.

7. Claims 16, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (6,892,069) in view of Gudat (6,771,609).

Regarding claim 16,

Flynn discloses all the claimed limitations, except moving the mobile node to said second network before requesting said system hand-off.

However, in the same field of endeavor, Gudat (6,771,609) discloses moving the mobile node to said second network before requesting said system hand-off (col.6, lines 22-30). Therefore, it would have been obvious to an artisan to apply Gudat's teaching to Flynn's system with the motivation being to obtain co-located care of address using service DHCP and provide the ability to change the routing of packets destined to any host to be delivered to anywhere in the Internet.

Regarding claim 19, Flynn discloses all the claimed limitations, except wherein the mobile node moves to the second network before the transmission of the registration request.

However, in the same field of endeavor, Gudat (6,771,609) discloses wherein the mobile node moves to the second network before the transmission of the registration request (col.6, lines 22–30). Therefore, it would have been obvious to an artisan to apply Gudat's teaching to Flynn's system with the motivation being to obtain co-located care of address using service DHCP and provide the ability to change the routing of packets destined to any host to be delivered to anywhere in the Internet.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee (6,535,493); La Porta (6,434,134 & 6,654,359) ; Tummala  
(6,915,345)

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuongchau Ba Nguyen  
Examiner  
Art Unit 2616

DUCHO  
PRIMARY EXAMINER



3-31-06